

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1           1.       (Currently Amended) An apparatus comprising:  
2                   one or more housing sections providing a sealed space;  
3                   a first explosive element in the sealed space;  
4                   a cable;  
5                   a component to provide a signal over the cable to the first explosive element to  
6 detonate the first explosive element;  
7                   a second explosive element having a first portion inside the sealed space, and a  
8 second portion outside the sealed space exposed to outside pressure, the first explosive element  
9 to initiate the second explosive element without presence of a pressure barrier between the first  
10 and second explosive elements; and  
11                   a gripping mechanism to grip a surface of the second explosive element to  
12 maintain a position of the second explosive element that is exposed to the outside pressure in an  
13 axial direction of the second explosive element.

1           2.       (Original) The apparatus of claim 1, wherein an inner surface of a first one of the  
2 one or more housing sections is contacted to the second explosive element to provide sealing  
3 engagement between the first housing section and the second explosive element.

1           3.       (Original) The apparatus of claim 2, wherein the first housing section comprises a  
2 boot formed of an elastic material, the boot contacted to the second explosive element.

1           4.       (Original) The apparatus of claim 3, wherein the elastic material comprises an  
2 elastomer.

1           5.       (Original) The apparatus of claim 3, wherein the one or more housing sections  
2 further comprise a hard housing section to house the first explosive element.

1           6.       (Original) The apparatus of claim 5, wherein the first explosive element in the  
2   hard housing section comprises a detonator explosive.

1           7.       (Original) The apparatus of claim 6, wherein the second explosive element  
2   comprises a detonating cord.

1           8.       (Original) The apparatus of claim 7, further comprising a booster explosive  
2   provided in the sealed space and ballistically connected between the detonator explosive and the  
3   detonating cord.

1           9.       (Original) The apparatus of claim 3, wherein the gripping mechanism comprises  
2   a grip tube having an inner space through which the second explosive element extends, the grip  
3   tube having a roughened inner surface to grip an outer surface of the second explosive element.

1           10.      (Original) The apparatus of claim 9, wherein the gripping mechanism further  
2   comprises a crimping shell to grip the second explosive element.

1           11.      (Original) The apparatus of claim 10, wherein the crimping shell is adapted to  
2   anchor the second explosive element at a first pressure, and the grip tube is adapted to anchor the  
3   second explosive element at a second pressure, the second pressure greater than the first  
4   pressure.

1           12.      (Original) The apparatus of claim 11, wherein the grip tube is adapted to collapse  
2   at greater than a predetermined pressure, wherein collapse of the grip tube causes the grip tube to  
3   grip the second explosive element.

1           13.      (Original) The apparatus of claim 10, wherein the boot comprises an inner  
2   chamber in which the grip tube and crimping shell are located.

1           14.     (Currently Amended) The apparatus of claim [[9]] 10, wherein the boot  
2 comprises an inner chamber in which the grip tube and crimping shell are located.

1           15.     (Original) The apparatus of claim 1, further comprising a well tool adapted to be  
2 activated by detonation of the first and second explosive elements.

1           16.     (Original) The apparatus of claim 1, further comprising a perforating gun to be  
2 activated by detonation of the first and second explosive elements.

1           17 - 30. (Cancelled)

1           31.     (New) The apparatus of claim 1, further comprising a third explosive element  
2 between the first and second explosive elements, wherein the third explosive element is  
3 contacted to the first explosive element, and the third explosive element is contacted to the  
4 second explosive element.

1           32.     (New) The apparatus of claim 1, wherein the component comprises an electronic  
2 module.

1           33.     (New) The apparatus of claim 32 wherein the electrical module is responsive to  
2 input signals provided over an input cable.

1           34.     (New) The apparatus of claim 1, wherein the cable comprises an electrical cable.

1           35.     (New) The apparatus of claim 31, wherein the first explosive element comprises  
2 a detonator, the second explosive element comprises a detonating cord, and third explosive  
3 element comprises a booster explosive between the detonator and the detonating cord, the  
4 booster explosive contacted to the detonator and contacted to the detonating cord.

1           36.   (New) An apparatus comprising:  
2                   one or more housing sections providing a sealed space;  
3                   a detonator in the sealed space;  
4                   a booster explosive contacted to the detonator in the sealed space;  
5                   a detonating cord contacted to the booster explosive, wherein a first portion of the  
6 detonating cord is in the sealed space, and a second portion of the detonating cord is outside the  
7 sealed space for exposure to the outside pressure; and  
8                   a gripping mechanism to grip a surface of the detonating cord to maintain a  
9 position of the detonating cord in the axial direction of the detonating cord.

1           37.   (New) The apparatus of claim 36, wherein the booster explosive is contacted to  
2 the detonator without presence of a barrier between the booster explosive and the detonator.